

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/28767

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : H01B 1/24; D01F 9/12 US CL : 252/502, 510, 511; 524/495, 496; 423/447.1 According to International Patent Classification (IPC) or to both national classification and IPC																				
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 252/502, 510, 511; 524/495, 496; 423/447.1 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 2003/0001141 A1 (SUN et al.) 2 January 2003 (02.01.2003), entire document</td> <td>1-4, 6, 8-15, 19, and 21-31</td> </tr> <tr> <td>X</td> <td>US 2002/0197474 A1 (REYNOLDS) 26 December 2002 (26.12.2002), entire document</td> <td>1-4, 6, 8-16, and 19-31</td> </tr> <tr> <td>Y</td> <td>US 2001/0016608 A1 (HADDON et al.) 23 August 2001 (23.08.2001), entire document</td> <td>1-4, 6, 8-16, and 19-31</td> </tr> <tr> <td>Y</td> <td>US 6,331,265 B1 (DUPIRE et al.) 18 December 2001 (18.12.2001), entire document</td> <td>1-4, 6, 8-16, and 19-31</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 2003/0001141 A1 (SUN et al.) 2 January 2003 (02.01.2003), entire document	1-4, 6, 8-15, 19, and 21-31	X	US 2002/0197474 A1 (REYNOLDS) 26 December 2002 (26.12.2002), entire document	1-4, 6, 8-16, and 19-31	Y	US 2001/0016608 A1 (HADDON et al.) 23 August 2001 (23.08.2001), entire document	1-4, 6, 8-16, and 19-31	Y	US 6,331,265 B1 (DUPIRE et al.) 18 December 2001 (18.12.2001), entire document	1-4, 6, 8-16, and 19-31			
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																		
X	US 2003/0001141 A1 (SUN et al.) 2 January 2003 (02.01.2003), entire document	1-4, 6, 8-15, 19, and 21-31																		
X	US 2002/0197474 A1 (REYNOLDS) 26 December 2002 (26.12.2002), entire document	1-4, 6, 8-16, and 19-31																		
Y	US 2001/0016608 A1 (HADDON et al.) 23 August 2001 (23.08.2001), entire document	1-4, 6, 8-16, and 19-31																		
Y	US 6,331,265 B1 (DUPIRE et al.) 18 December 2001 (18.12.2001), entire document	1-4, 6, 8-16, and 19-31																		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																				
<table border="0"> <tr> <td colspan="2"> * Special categories of cited documents: </td> <td> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention </td> </tr> <tr> <td> "A" document defining the general state of the art which is not considered to be of particular relevance </td> <td> "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone </td> <td></td> </tr> <tr> <td> "B" earlier application or patent published on or after the international filing date </td> <td> "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art </td> <td></td> </tr> <tr> <td> "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) </td> <td> "&" document member of the same patent family </td> <td></td> </tr> <tr> <td> "O" document referring to an oral disclosure, use, exhibition or other means </td> <td></td> <td></td> </tr> <tr> <td> "P" document published prior to the international filing date but later than the priority date claimed </td> <td></td> <td></td> </tr> </table>			* Special categories of cited documents:		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone		"B" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art		"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family		"O" document referring to an oral disclosure, use, exhibition or other means			"P" document published prior to the international filing date but later than the priority date claimed		
* Special categories of cited documents:		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention																		
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone																			
"B" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art																			
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family																			
"O" document referring to an oral disclosure, use, exhibition or other means																				
"P" document published prior to the international filing date but later than the priority date claimed																				
Date of the actual completion of the international search 25 October 2005 (25.10.2005)		Date of mailing of the international search report 15 NOV 2005																		
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Stanley Silverman Telephone No. 571-272-1700 Jean Proctor Principal Specialist																		